

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-10 (Canceled).

11. (New) A process for purifying and cooling a gas stream comprising a dialkyl ester A) of an aromatic dicarboxylic acid, which comprises treating the gas stream with an aliphatic dihydroxy compound B) at a temperature less than/equal to the melting point of the dialkyl ester A) in a 1st stage and treating the gas stream with an aliphatic dihydroxy compound B) at above the melting point of the dihydroxy compound B) in at least one second stage, wherein the dihydroxy compound B) has a temperature less than/equal to 140°C in the first stage and has a temperature of from 20 to 80°C in the second stage.
12. (New) The process according to claim 11, wherein the dialkyl ester A) is an ester of terephthalic acid, isophthalic acid, 2,6-naphthalenedicarboxylic acid or a mixture thereof.
13. (New) The process according to claim 11, wherein the dialkyl ester A) has alkyl radicals having from 1 to 4 carbon atoms.
14. (New) The process according to claim 11, wherein the gas stream which is purified and cooled is a laden inert gas stream.
15. (New) The process according to claim 11, wherein the dihydroxy compound B) used is a diol having from 2 to 6 carbon atoms.
16. (New) The process according to claim 11, wherein the dihydroxy compound B) used is 1,4-butanediol.
17. (New) The process according to claim 11, wherein the dialkyl ester A) is dimethyl terephthalate.
18. (New) The process according to claim 11, wherein the degree of saturation[%] of the gas stream with respect to the dialkyl ester is less than/equal to 50%.

19. (New) The process according to claim 11, wherein the gas stream contains less than 20 ppm by weight of the aromatic dialkyl ester A) after purification and cooling.